

Application Serial No.: 09/801,401  
Attorney Docket No.: 0190229

**List of Claims:**

**Claim 1 (Currently Amended):** An imaging system comprising:

an image sensing circuitry that produces a raw image data;

an image processing circuitry, communicatively coupled to the image sensing circuitry, that processes the raw image data into a processed intermediate image data;

a transformation circuitry, separate from said image processing circuitry and communicatively coupled to the image processing circuitry through an intermediate storage queue, that transforms the processed intermediate image data into a processed final image data;

a communication circuitry, communicatively coupled to the transformation circuitry, that links the imaging system to a final storage;

[[an]] said intermediate storage queue configured to store one or more processed intermediate image data, wherein the intermediate storage queue is communicatively coupled to the image processing circuitry and the transformation circuitry; and

the intermediate storage queue storing the one or more processed intermediate image data from the image processing circuitry awaiting additional image processing by the transformation circuitry.

**Claim 2 (Original):** The imaging system of claim 1 wherein the intermediate storage queue is communicatively coupled to the image sensing circuitry and stores one or

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more raw image data, the one or more raw image data being delivered to the image processing circuitry upon the occurrence of an event.

**Claim 3 (Original):** The imaging system of claim 2 wherein the one or more raw image data is held in the intermediate storage queue while the image processing circuitry is processing another image data, and one of the one or more raw image data is delivered to the image processing circuitry when the image processing circuitry ceases processing on the another image data.

**Claim 4 (Original):** The imaging system of claim 2 wherein additional raw image data are stored in the intermediate storage queue, and each of the raw image data stored in the intermediate storage queue are delivered to the image processing circuitry when the amount of raw image data in the intermediate storage queue reaches a predetermined level.

**Claim 5 (Cancelled)**

**Claim 6 (Previously Presented):** The imaging system of claim 1 wherein the one or more processed intermediate image data is held in the intermediate storage queue while the transformation circuitry is processing another processed intermediate image data, and one of the one or more processed intermediate image data is delivered to the

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transformation circuitry when the transformation circuitry ceases processing on the another processed intermediate image data.

**Claim 7 (Previously Presented):** The imaging system of claim 1 wherein additional processed intermediate image data are stored in the intermediate storage queue, and each of the processed intermediate image data stored in the intermediate storage queue are delivered to the transformation circuitry when the amount of processed intermediate image data in the intermediate storage queue reaches a predetermined level.

**Claim 8 (Original):** The imaging system of claim 1 wherein the transformation circuitry performs a compression on the image data.

**Claim 9 (Original):** The imaging system of claim 1 further comprising a processing circuitry monitoring the status of the intermediate storage queue.

**Claim 10 (Original):** The imaging system of claim 1, wherein the imaging system processes the image data in the intermediate storage queue in response to an indication that the imaging system has been linked to an external power source.

**Claims 11-22 (Cancelled)**

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**Claim 23 (Currently Amended):** A method of operating an imaging system, the method comprising:

producing a raw image data by an image sensing circuitry of the imaging system;

processing the raw image data into a processed intermediate image data by an image processing circuitry communicatively coupled to the image sensing circuitry;

transforming the processed intermediate image data into a final image data by a transformation circuitry separate from said image processing circuitry and communicatively coupled to the image processing circuitry through an intermediate storage queue;

linking the imaging system to a final storage via a communication circuitry communicatively coupled to the transformation circuitry;

storing one or more processed intermediate image data in [[an]] said intermediate storage queue;

wherein the intermediate storage queue is communicatively coupled to the image processing circuitry and the transformation circuitry, and wherein the intermediate storage queue storing the one or more processed intermediate image data from the image processing circuitry awaiting additional image processing by the transformation circuitry.

**Claim 24 (Previously Presented):** The method of claim 23, wherein the intermediate storage queue is communicatively coupled to the image sensing circuitry, the method further comprising:

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storing one or more raw image data; and  
delivering the one or more raw image data to the image processing circuitry upon  
the occurrence of an event.

**Claim 25 (Previously Presented):** The method of claim 24 further comprising:  
holding the one or more raw image data in the intermediate storage queue while  
the image processing circuitry is processing another image data; and  
delivering one of the one or more raw image data to the image processing circuitry  
when the image processing circuitry ceases processing on the another image data.

**Claim 26 (Previously Presented):** The method of claim 24 further comprising:  
storing additional raw image data in the intermediate storage queue; and  
delivering each of the raw image data stored in the intermediate storage queue to  
the image processing circuitry when the amount of raw image data in the intermediate  
storage queue reaches a predetermined level.

**Claim 27 (Previously Presented):** The method of claim 23 further comprising:  
holding the one or more processed intermediate image data in the intermediate  
storage queue while the transformation circuitry is processing another image data; and

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delivering one of the one or more processed intermediate image data to the transformation circuitry when the transformation circuitry ceases processing on the another image data.

**Claim 28 (Previously Presented):** The method of claim 23 further comprising:  
storing additional processed intermediate image data in the intermediate storage queue; and

delivering each of the processed intermediate image data stored in the intermediate storage queue to the transformation circuitry when the amount of processed image data in the intermediate storage queue reaches a predetermined level.

**Claim 29 (Previously Presented):** The method of claim 23 further comprises compressing the image data using the transformation circuitry.

**Claim 30 (Previously Presented):** The method of claim 23 further comprises monitoring the status of the intermediate storage queue using a processing circuitry.

**Claim 31 (Previously Presented):** The method of claim 23 further comprises processing the image data in the intermediate storage queue in response to an indication that the imaging system has been linked to an external power source.